

REMARKS

Claims 10-23 are in the application.

Claims 10-20 and 23 have been examined. Claims 21 and 22 have been withdrawn from consideration.

Claim 10 is the sole independent claim. It has been amended herein to recite that the treatment with apyrase, alkaline phosphatase and adenosine deaminase is without 5'-nucleotidase; basis for this amendment is found in the application as filed at page 14, lines 4-11.

The same amendment was made in parent Application No. 09/926,138, now U.S. Patent No. 6,762,026.

Claim 11 has been amended to recite that the reaction with glucose oxidase, glycogen phosphorylase and alkaline phosphatase is an additional cleaning step. Basis for this amendment is found in the application as filed at page 27, lines 17-19.

We turn now to the objections and rejections.

The disclosure is objected to because the first paragraph needs to be updated. Appropriate correction is made herein. Reconsideration is requested.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, for being indefinite to whether the three cleaning enzymes to remove endogenous glycogen are additional to or instead of the three cleaning enzymes to remove endogenous nucleotides and glucose-6-phosphate.

Claim 11 has been amended herewith to make clarification.

Reconsideration is requested.

Claims 10, 13, 14, 16-19 are rejected under 35 U.S.C. 102(a) as being anticipated by Saegusa et al. (U) and Sugiyama et al. (V). Reconsideration is requested on the basis that the two references are not prior art. The two references were both published in 2000. On the other hand, the priority date of the present application is March 18, 1999. Thus, the two references were published after the priority date. The content of the priority application (JP-11-73690 (1999)) is essentially the same as that of the instant application. We enclose an English

translation of the priority document with verification thereof. Reconsideration of the rejection is requested.

Claims 10, 12-16, 19, 20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Lurie et al U.S. Patent No. 5,618,665. Reconsideration is requested. The present inventor, Sugiyama, is one of the inventors of U.S. P. 5,618,665. As the Office Action says, example 10 in U.S. P. 5,618,665 discloses a method of determining cAMP concentration in a sample wherein the cleaning reaction comprises apyrase, alkaline phosphatase and adenosine deaminase; ... converting; determining However, the cleaning reaction in U.S. 5,618,665 is not the same as that of the present invention. According to the section "Part B. Enzymatic fluorometric assay" in Example 10 of U.S.P. 5,618,665 (col. 22, lines 35-45), apyrase, 5'-nucleotidase, adenoside deaminase, and alkaline phosphatase are used in the cleaning reaction, that is, 5'-nucleotidase is essential in the assay of U.S.P. 5,618,665. In the present invention, however, three enzymes, i.e. apyrase, alkaline phosphatase and adenosine deaminase are essential as component parts but 5'-nucleotidase is not used in the present invention. Claim 10 as amended excludes 5'-nucleotidase.

Thus the claims as amended distinguish U.S. Patent No. 5,618,665 from an anticipation standpoint.

Claims 10-16, 19 and 23 are rejected under 35 U.S.C. 103(a) as being obvious over Lurie et al. U.S. Patent No. 5,618,665,

Reconsideration is requested on the basis that the exclusion of 5'-nucleotidase from the cleaning reaction as recited in amended claim 10, is not obvious.

As described in the present specification at lines 4-11, page 14, the claimed invention improves on the assay of WO94/17198, which is equivalent to U.S.P. 5,618,665. 5'-Nucleotidase, which is used in U.S.P. 5,618,655, is chemically unstable, and is unantagonistically inhibitable in the presence of ADP. The inventor has found that only 3 enzymes, apyrase, alkaline phosphatase and adenosine deaminase without 5'nucleotidase can constitute the cleaning process, and furthermore the cleaning reaction period can be shortened from 1 hour to 10 minutes by deleting 5'-nucleotidase (see Example 1 of the present application, page 41-44).

Application No. 10/807,169
Attny Dkt No.: SUGI3001D/ESS

Accordingly, the most important point of the present invention is to exclude the "5'-nucleotidase". None of these is obvious.

Therefore the claimed invention is unobvious over U.S. Patent No. 5,618,655.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,618,655 as applied above further in view of Omburo et al. (AR) and Sawada (AS). Reconsideration is requested. Omburo and Sawada do not obviate the deficiency of no exclusion of 5'-nucleotidase, i.e., Omburo et al. neither teaches nor describes exclusion of 5'-nucleotidase from a cleaning reaction and 5'-nucleotidase is essential in Sawada (see Fig. 1 at page 91 and left column, line 8 at page 92).

Allowance is requested.

Respectfully submitted,

BACON & THOMAS, PLLC.

By: 
Eric S. Spector
Reg. No. 22,495

BACON & THOMAS, PLLC.
625 Slaters Lane, Fourth Floor
Alexandria, Virginia 22314
703 683 0500

Date: January 12, 2007

Case: 539905 HS
B&T Docket No. SUGI3001D